BEFORE THE ARIZONA MEDICAL BOARD

In the Matter of **RONALD E. AREBALO, M.D.** Holder of License No. **20144** For the Practice of Allopathic Medicine In the State of Arizona.	Board Case No. MD-04-0285A **FINDINGS OF FACT, CONCLUSIONS OF LAW AND ORDER** (Letter of Reprimand & Probation)

The Arizona Medical Board ("Board") considered this matter at its public meeting on October 14, 2004. Ronald Arebalo, M.D., ("Respondent") appeared before the Board with legal counsel Paul Briggs for a formal interview pursuant to the authority vested in the Board by A.R.S. § 32-1451(H). The Board voted to issue the following findings of fact, conclusions of law and order after due consideration of the facts and law applicable to this matter.

FINDINGS OF FACT

1. The Board is the duly constituted authority for the regulation and control of the practice of allopathic medicine in the State of Arizona.

2. Respondent is the holder of License No. 20144 for the practice of allopathic medicine in the State of Arizona.

3. The Board initiated case number MD-04-0285A after receiving a complaint regarding Respondent's care and treatment of a 42 year-old female patient ("PM").

4. PM had multiple medical problems, including exogenous obesity, GERD, probable sleep apnea, hypertension, hypothyroidism and chronic Hepatitis C. PM also had a history of significant asthma for which she had been on Flovent, Singulair, Foradil, and Albuterol. PM's primary care physician ordered a Cardiolite stress test after PM complained of chest pain.

5. PM suffered respiratory arrest during the Cardiolite stress test Respondent supervised. Respondent was asked to explain the protocol he uses during the stress test, to give a brief overview of the type of equipment and protocol used. Respondent testified that the patient is hooked up to a twelve lead cardiac monitor with a peripheral line in. Respondent was asked which lead he used to monitor PM. Respondent testified that he believed it was "modified 2." Respondent continued that patients have a peripheral line in and the Adenosine infusion is started. At three minutes the Cardiolite is given and the test is concluded three minutes later, at six minutes.

6. Respondent was asked what other sort of medications or resuscitative gear was in the room at the time the test is done. Respondent testified that he had Albuteral Nebs and a crash cart right outside the room. Respondent was asked what the crash cart contained and he noted it contained the items used in a code. Respondent was asked to elaborate. Respondent stated there was also Epinephrine, Atropine, probably Dopamine and Adenosine. Respondent stated he thought there was Morphine and there was probably more, but off the top of his head, he could not recall more. Respondent was asked if there was airway equipment and whether he was skilled at intubating a patient who codes. Respondent indicated that he was, but there was no need to intubate PM. Respondent was asked why he would not have intubated PM when she had a cardiac arrest and was down for a period of time. Respondent testified PM was down for less than a few minutes and was breathing on her own within a couple of minutes, so he assisted her for probably twenty minutes until she started waking up consciously. Respondent noted that PM maintained her cardiac rhythm throughout, she got a little bradycardic into the thirties, but that was it. Respondent stated that PM responded to the atropine.

7. Respondent was asked what kind of complications he could expect from a chemical stress test. Respondent testified that the major one was the possibility of a major coronary event, that cardiac arrest can be induced from an inline or some other cardiac problem. Respondent was asked to identify the first indication that such an event is occurring. Respondent testified that you look at the monitor to see if there are any changes and you also note whether the patient is complaining of chest pain. Respondent was asked to explain what changes he would expect to see on the monitor. Respondent noted that you can see ST depression and/or ST elevation if the patient has an acute blockage. Respondent was asked which lead is generally accepted among those that perform this stress test as the best lead for monitoring EKG changes. Respondent stated that lead one and two are the best and that is what he used.

8. Respondent was asked to state the criteria for calling the electrocardiograph tracing on a stress test abnormal and whether the cardiologists have some sort of criteria they use. Respondent stated that abnormal would be greater than one millimeter ST segment changes. Respondent was asked to be more specific. Respondent stated that greater than one millimeter ST depression or ST elevation is considered a positive test. Respondent was asked where this would be, whether it would be in lead 2. Respondent noted that it could be in any lead, that there are twelve leads before and after 2.

9. Respondent was asked if he ever had a patient he to whom he was giving a stress test have a ventricular tachycardia and, if so, how did he treat it. Respondent stated he had not had it happen, but if it did, he would treat it as if the patient were having a heart attack. Respondent was asked to give specifics of treating ventricular tachycardia. Respondent noted he would give the patient Nitroglycerin for starters and

he thinks there is usually Lidocaine in the crash cart and he would administer it. Respondent was asked how much Lidocaine he would administer. Respondent testified that he would give 50 milligrams for starters, 50 or 100, depending on the patient's size. Respondent was asked if any other drug was useful. Respondent stated Procainamide was also useful and he would give probably one milligram. Respondent was asked what other treatment for ventricular tachycardia would be available to him in the setting in which he works. Respondent stated that override pacing was available.

10. Respondent was asked if he knew what Adenosine was. Respondent testified that it was a vasodilator to stimulate the patient's heart to contract. Respondent was asked to give more specifics, whether he could tell the Board what kind of chemical Adenosine was. Respondent asked for clarification of the question and was asked to state the contraindications to the use of Adenosine. Respondent testified that contraindications included severe reactive airway disease and any known allergy. Respondent stated that he could not think of anything else. Respondent was asked about administering the Adenosine stress test to PM, a patient with a history of fairly significant asthma. Respondent testified that PM did not have significant asthma. Respondent noted that she did not use her inhalers everyday, was not on steroids, and still smoked. As a result, Respondent believed it was mild asthma.

11. Respondent was asked if he spoke to PM's primary care physician ("PCP"). Respondent stated he spoke to the PCP once, three or four days before the test, and to his nurse once. Respondent was asked what the PCP told him about PM. Respondent stated the PCP told him PM had asthma, but it did not appear to be severe and that he was going to tell PM to take Advair the day of the test. Respondent was asked if Adenosine had any effect on the airways. Respondent said one effect was bronchospasm. Respondent was asked if it would be a good idea to perform an

Adenosine stress test on a patient with a history of asthma who is wheezing. Respondent stated that it would not.

12. Respondent was asked if it was his testimony that he examined PM prior to the test and her lungs were clear and breath sounds normal: Respondent stated that it was. Respondent was asked whether all people with asthma wheeze and, what did it mean if he did not hear wheezing. Respondent testified that not all people with asthma wheeze and if he did not hear wheezing it would mean that they are very, very tight, but usually have symptoms of dyspnea or shortness of breath. Respondent noted that PM was asthmatic before the test.

13. Respondent was asked whether Dobutamine might have been a better choice for a patient with the comorbidities PM had. Respondent stated that it would have been, but he did not have a written Dobutamine protocol approved by medical staff. Respondent was asked how urgent it was that PM undergo the stress test on the day in question. Respondent stated that it was urgent, not emergent. Respondent noted that he had been told PM had been having chest pain on and off for a couple of weeks. Respondent was asked why he would proceed with doing the Adenosine stress test if he knew PM was having chest pain on and off for a couple of weeks and the only protocol available to him was not optimal for her, when he could have referred her to Phoenix or Albuquerque to have the test done with an agent that was more suitable to her comorbidities. Respondent testified that he discussed it with PM's cardiologist in Show Low and he said it would probably be okay to do the test. Respondent was asked if he discussed with PM that she was at increased risk of bronchospasms and problems. Respondent stated that he always does that with anyone with pulmonary disease.

14. Respondent was asked how long he had been doing cardiac stress testing. Respondent testified that he started in 1991 and he did his first at this hospital in November 2003. Respondent stated that a cardiologist from Show Low asked him to start doing the tests because they were backed up almost six weeks. Respondent noted that PM's test was probably somewhere in between the thirtieth and fortieth test he had done at this hospital and he had no problems prior to PM's test.

15. Respondent was asked how, with the knowledge of what happened to PM, he would select his patients in the future. Respondent stated now that the facility has an approved Dobutamine protocol. If a patient has used an inhaler in the previous month he will use the Dobutamine. Respondent was asked how much a part of his practice the stress tests were. Respondent testified he did the tests because he was asked to as part of his hospital duties. The tests are a small part of his practice, and he does not charge any fee nor does he receive any portion of the fee paid to the hospital.

16. Respondent was asked to refer to PM's record where the PCP suggested a stress Cardiolite, if possible, and if not, Adenosine Cardiolite. Respondent was asked why he could not do the stress Cardiolite. Respondent testified that he did not do it because PM did not feel like she could do it because of her size and her hips hurt.

17. Respondent did not mention or was not aware of major contraindications of Adenosine and his knowledge of appropriate monitoring modalities during a stress test seemed deficient. Respondent's knowledge of resuscitation appeared deficient as well.

18. The standard of care requires a physician supervising a stress test have adequate knowledge of monitoring parameters, the pharmacology of drugs used and of the immediate treatment of adverse reactions.

19. Respondent fell below the standard of care because he did not have adequate knowledge of monitoring parameters, the pharmacology of the drugs used nor of the immediate treatment of adverse reactions.

20. The potential harm to PM is cardiac and respiratory arrest.

CONCLUSIONS OF LAW

1. The Arizona Medical Board possesses jurisdiction over the subject matter hereof and over Respondent.

2. The Board has received substantial evidence supporting the Findings of Fact described above and said findings constitute unprofessional conduct or other grounds for the Board to take disciplinary action.

3. The conduct and circumstances described above constitutes unprofessional conduct pursuant to A.R.S. § 32-1401(27)(q) ("[a]ny conduct or practice that is or might be harmful or dangerous to the patient or the public.")

ORDER

Based upon the foregoing Findings of Fact and Conclusions of Law,

IT IS HEREBY ORDERED that:

1. Respondent is issued a Letter of Reprimand for failure to properly evaluate and monitor a patient during a cardiac stress test, resulting in respiratory arrest.

2. Respondent is placed on probation for one year with the following terms and conditions:

a. Respondent shall within 12 months of the effective date of this Order obtain 20 hours of Board Staff pre-approved Category I Continuing Medical Education ("CME") in cardiac stress testing, including chemical cardiac stress testing and the pharmacology of cardiovascular drugs. The CME hours shall be in addition to the hours required for

biennial renewal of medical license. Respondent's probation will end when he supplies satisfactory proof to Board Staff of his completion of the required CME.

b. Respondent shall obey all federal, state and local laws, and all rules governing the practice of medicine in Arizona.

c. In the event Respondent should leave Arizona or reside or practice outside the State or for any reason should Respondent stop practicing medicine in Arizona, Respondent shall notify the Executive Director in writing within 10 days of departure or return of the dates of non-practice within Arizona. Non-practice is defined as any period of time exceeding thirty days during which Respondent is not engaged in the practice of medicine. Periods of temporary or permanent residence or practice outside Arizona or of non-practice within Arizona do not apply to the reduction of the probationary period.

RIGHT TO PETITION FOR REHEARING OR REVIEW

Respondent is hereby notified that he has the right to petition for a rehearing or review. The petition for rehearing or review must be filed with the Board within thirty (30) days after service of this Order and must set forth legally sufficient reasons for granting a rehearing or review. A.R.S. § 41-1092.09, A.A.C. R4-16-102, it. Service of this order is effective five (5) days after date of mailing. If a motion for rehearing or review is not filed, the Board's Order becomes effective thirty-five (35) days after it is mailed to Respondent.

Respondent is further notified that the filing of a motion for rehearing or review is required to preserve any rights of appeal to the Superior Court.

DATED this 4th day of January, 2005.

THE ARIZONA MEDICAL BOARD

By _____
TIMOTHY C. MILLER, J.D.
Executive Director

ORIGINAL of the foregoing filed this 5 day of January, 2005 with:

Arizona Medical Board
9545 East Doubletree Ranch Road
Scottsdale, Arizona 85258

Executed copy of the foregoing mailed by U.S. Certified Mail this 5 day of January, 2005, to:

Paul Briggs
Shughart Thomson & Kilroy, P.C.
One Columbus Plaza
3636 N Central Ave Ste 1200
Phoenix AZ 85012-1998

Executed copy of the foregoing mailed by U.S. Mail this 5 day of January, 2005, to:

Ronald E. Arebalo, M.D.
Address of Record

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